

BEST AVAILABLE COPY

CLIPPEDIMAGE= JP404095408A

PAT-NO: JP404095408A

DOCUMENT-IDENTIFIER: JP 04095408 A

TITLE: SEMICONDUCTOR DEVICE

PUBN-DATE: March 27, 1992

INVENTOR-INFORMATION:

NAME

NISHIMAKI, TATSUO

ASSIGNEE-INFORMATION:

NAME

SEIKO EPSON CORP

COUNTRY

N/A

APPL-NO: JP02213222

APPL-DATE: August 10, 1990

INT-CL (IPC): H03F003/45;H03F001/02 ;H03F001/42

US-CL-CURRENT: 330/252

ABSTRACT:

PURPOSE: To set a current flowing in an operational amplifier to several-stage by providing plural constant current sources and a constant current source selection circuit into one semiconductor device.

CONSTITUTION: The semiconductor device is provided with a differential stage 101 of an operational amplifier, PMOS switches 104, 105 to select the supply of a current to a constant current source, differential stage constant current sources 106, 107 to supply a current to the differential stage, an operational amplifier differential amplifier stage 108 to amplify a voltage difference between a noninverting input 109 and an inverting input 110, constant current source selection registers 111, 112 to latch a signal to select the constant current sources 106, 107, an operational amplifier output stage outputting an output from the differential stage externally and an output stage constant current source 114 to set a current consumption of the output stage. Then the current consumption in the differential stage is selected by writing